## Scheiderer, Spectrahedral shadows

A set  $S \subseteq \mathbb{R}^n$  is a spectrahedron if there are real symmetric matrices  $A_0, \ldots, A_n$  of some size such that S consists of all  $x \in \mathbb{R}^n$  such that  $A_0 + \sum_{i=1}^n x_i A_i$  is positive semidefinite. Linear images of spectrahedra are called spectrahedral shadows. We'll review some results from the last years on spectrahedral shadows and non-shadows, and we'll address a few open questions in this context.